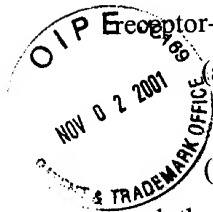


PENDING CLAIMS

As of Amendment Filed November 2, 2001
Application No. 09/625,137 (Attorney Docket No. 8449-123)

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WHAT IS CLAIMED IS:



1. A method for identifying a compound that modulates an HSP- α 2M receptor-mediated process, comprising:
 - (a) contacting a test compound with a heat shock protein and an alpha (2) macroglobulin receptor; and
 - (b) measuring the level of alpha (2) macroglobulin receptor activity or expression, such that if the level of activity or expression measured in (b) differs from the level of alpha (2) macroglobulin receptor activity in the absence of the test compound, then a compound that modulates an HSP- α 2M receptor-mediated process is identified.
2. The method of Claim 1, in which the compound identified is an antagonist which interferes with the interaction of the heat shock protein with the alpha (2) macroglobulin receptor, further comprising the step of:
 - (c) determining whether the level interferes with the interaction of the heat shock protein and the alpha (2) macroglobulin receptor.
3. The method of Claim 1, in which the test compound is an antibody specific for the alpha (2) macroglobulin receptor.
4. The method of Claim 1, in which the test compound is an antibody is specific for alpha (2) macroglobulin.
5. The method of Claim 1, in which the test compound is an antibody is specific for a heat shock protein.
6. The method of Claim 1, in which the test compound is a small molecule.
7. The method of Claim 1, in which the test compound is a peptide.
8. The method of Claim 7, in which the peptide comprises at least 5 consecutive amino acids of the alpha (2) macroglobulin receptor (SEQ ID NO.: 7).

9. The method of Claim 7, in which the peptide comprises at least 5 consecutive amino acids of alpha (2) macroglobulin (SEQ ID NO.: 4).

10. The method of Claim 7, in which the peptide comprises at least 5 consecutive amino acids of a heat shock protein sequence.

11. The method of Claim 1, in which the compound is an agonist which enhances the interaction of the heat shock protein with the alpha (2) macroglobulin receptor.

12. The method of Claim 1 in which the HSP- α 2M receptor-mediated process affects an autoimmune disorder, a disease or disorder involving disruption of antigen presentation or endocytosis, a disease or disorder involving cytokine clearance or inflammation, a proliferative disorder, a viral disorder or other infectious disease, hypercholesterolemia, Alzheimer's disease, diabetes, or osteoporosis.

13. A method for identifying a compound that modulates an HSP- α 2M receptor-mediated process, comprising:

- a. contacting a test compound with a heat shock protein and an alpha (2) macroglobulin receptor-expressing cell; and
- (b) measuring the level of alpha (2) macroglobulin receptor activity or expression in the cell,

such that if the level of activity or expression measured in (b) differs from the level of alpha (2) macroglobulin receptor activity in the absence of the test compound, then a compound that modulates an HSP- α 2M receptor-mediated process is identified.

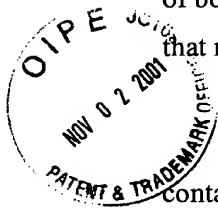
14. The method of Claim 1 or 13 wherein the alpha (2) macroglobulin receptor activity measured is the ability to interact with a heat shock protein.

15. The method of Claim 13 wherein the heat shock protein is non-covalently associated with an antigenic peptide and the alpha (2) macroglobulin receptor activity measured is the ability to re-present the antigenic peptide.

16. The method of Claim 13 wherein the heat shock protein is non-covalently associated with an antigenic peptide and the alpha (2) macroglobulin receptor activity measured is the ability to stimulate a cytotoxic T cell response against the antigenic peptide.

17. A method for identifying a compound that modulates the binding of a heat shock protein to the α 2M receptor, comprising:

- (a) contacting a heat shock protein with an alpha (2) macroglobulin receptor, or fragment, or analog, derivative or mimetic thereof, in the presence of a test compound; and
- (b) measuring the amount of heat shock protein bound to the alpha (2) macroglobulin receptor, or fragment, analog, derivative or mimetic thereof, such that if the amount of bound heat shock protein measured in (b) differs from the amount of bound heat shock protein measured in the absence of the test compound, then a compound that modulates the binding of an HSP to the α 2M receptor is identified.



18. The method of Claim 17 or 67, in which the alpha (2) macroglobulin receptor contacted in step (a) is on a cell surface.

19. The method of Claim 17 or 67, wherein the alpha (2) macroglobulin receptor is immobilized to a solid surface.

20. The method of Claim 19 wherein the solid surface is a microtiter dish.

21. The method of Claim 17 wherein the amount of bound heat shock protein is measured by contacting the cell with a heat shock protein-specific antibody.

22. The method of Claim 17 wherein the heat shock protein is labeled and the amount of bound heat shock protein is measured by detecting the label.

23. The method of Claim 22 wherein the heat shock protein is labeled with a fluorescent label.